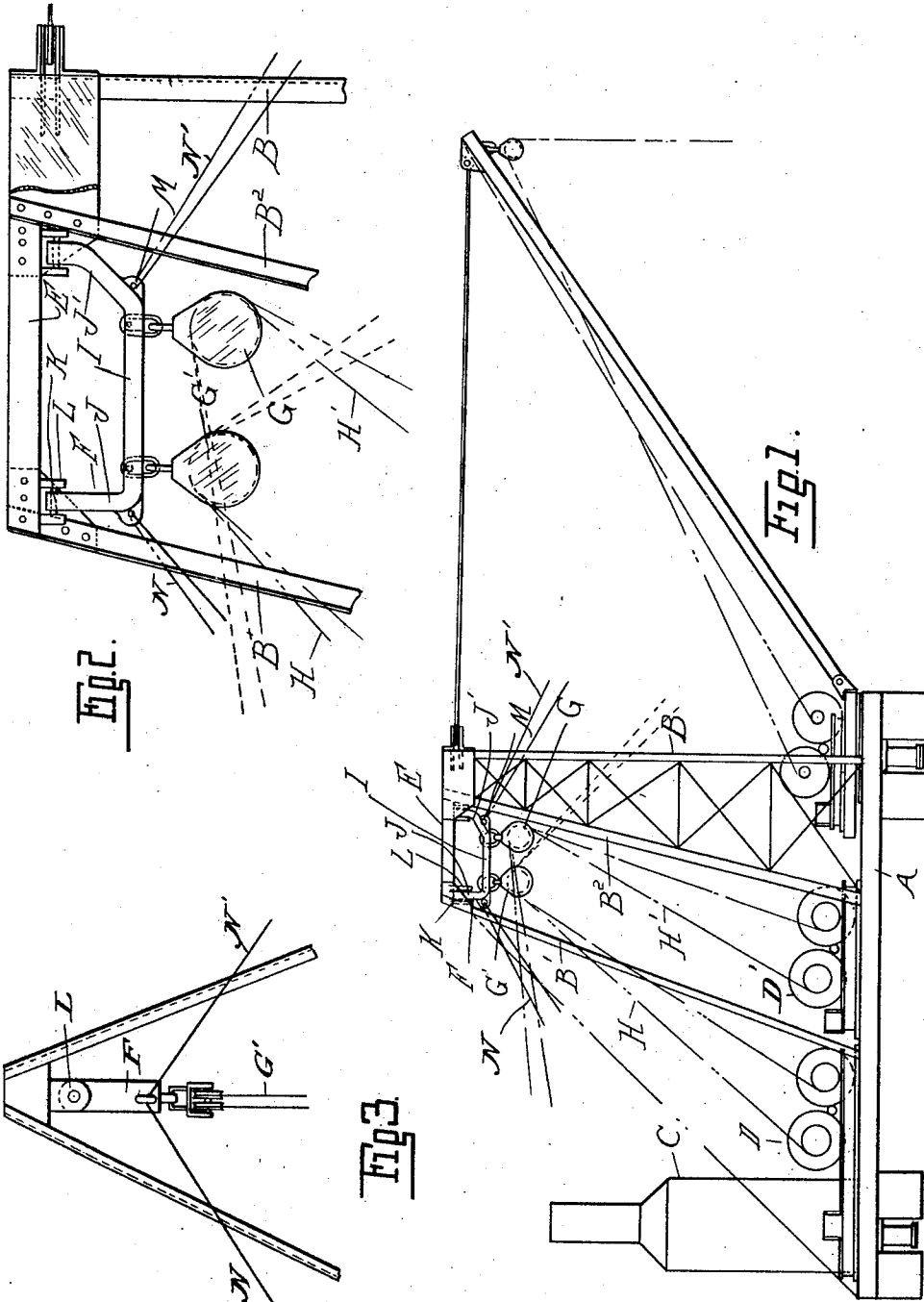


C. W. RUSSELL.
 LOGGING APPARATUS.
 APPLICATION FILED MAR. 24, 1910.

1,034,305.

Patented July 30, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

CLINTON W. RUSSELL, OF DETROIT, MICHIGAN.

LOGGING APPARATUS.

1,034,305.

Specification of Letters Patent.

Patented July 30, 1912.

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To all whom it may concern:

Be it known that I, CLINTON W. RUSSELL, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Logging Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to logging apparatus, and has more particular reference to the means employed for supporting the sheaves over which the hauling cables pass.

The invention consists in the novel construction as hereinafter set forth.

In the drawings—Figure 1 is a side elevation of the logging apparatus, provided with my improved construction. Fig. 2 is an enlarged detail view of a portion of my apparatus, and Fig. 3 is an end elevation of the structure shown in Fig. 2 looking to the right of said figure.

A is the base or supporting frame, upon which is mounted the derrick B, the engine C, and hoisting drums D, D', etc. The derrick B is preferably formed of a plurality of A-frames suitably braced to form a rigid structure. Two of these frames, B' and B², are connected at their upper ends with a beam E, to which is secured a pendent pivotal frame F, and to this pivotal frame are secured the sheaves G G' for the hauling cables H H' which lead to the drums D D'. The frame F is preferably bale-shaped, having the horizontal portion I and the upwardly-extending portions J J' which are connected to the main frame by pivots K engaging brackets L. At opposite ends of the horizontal portion I are formed eyes M for attachment of the guy lines N N'.

When the apparatus is in use the guy lines are run out laterally and secured to suitable anchorages. If the logs are both in front and in the rear of the apparatus, one set of hauling cables as H are connected to the logs in front and another set as H' to those in the rear. The drums are then operated through the medium of the engine C to wind up the hauling cables and bring in the logs. The resistance of the load on

the hauling cables is transmitted from the sheaves to the pivotal member F and to the guy lines for anchoring the same without exerting any lateral stress upon the derrick.

What I claim as my invention is:

1. In a logging apparatus, a derrick comprising separated A-frames, a connecting beam between the upper ends of said frames, a pendent frame arranged in the plane of said beam and pivotally secured thereto, a hauling cable, and a sheave for said hauling cable secured to said pendent frame.

2. In a logging apparatus, a derrick comprising separated frames, a rack arranged between and adjacent the upper end of said frames and secured thereto adapted to swing transversely of the frames, and pivotally secured to said swinging rack.

3. In a logging apparatus, a derrick comprising separated frames, a connecting beam between the upper ends of the frames, a rack secured to said beam adapted to swing transversely of the frames and secured against longitudinal swinging movement, and a sheave pivoted to said swinging frame.

4. In a logging apparatus, the combination with a derrick and a hauling cable, of a beam rigidly secured to the derrick, a frame secured to said beam and pivoted thereto for transverse swinging movement, said pivotal connection being adapted to prevent longitudinal swinging movement of said frame, and a sheave for said hauling cable secured to said swinging frame.

5. In a logging apparatus, the combination with a derrick and a hauling cable, of a frame pivoted to said derrick for transverse swinging movement, said pivotal connection being adapted to prevent longitudinal swinging movement of said frame, and a sheave for said hauling cable pivotally secured to said swinging frame.

In testimony whereof I affix my signature in presence of two witnesses.

CLINTON W. RUSSELL.

Witnesses:

NELLIE KINSELLA,
W. J. BELKNAP.